

Date: Thursday, 15/01/2009 12:35:30 PM
 User: Julie Dawson

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	BO 105 SKIDTUBE ASSEMBLY
Job Number :	44846		
Estimate Number :	10119		
P.O. Number :		Part Number :	D105674011WG
This Issue :	15/01/2009	S.O. No. :	
Prsht Rev. :	NC	Drawing Number :	D2966 REV A2
First Issue :	//	Project Number :	N/A
Previous Run :	41331	Drawing Revision :	A2
	Type :	Material :	
	SKIDTUBES	Due Date :	28/01/2009
Written By :		Qty:	1
Checked & Approved By :	JLD 09.01.15	Um:	Each
Comment :	Est Rev:A 04.07.07 New Issue KJ/JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
----------------	------------------------------	----------------------

1.0	DC	DOCUMENT CONTROL
-----	----	------------------



Handwritten: JLD 09/02/17



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPP D105-674-011 CHG002

2.0	D2962125	Outer Tube Extrusion
-----	----------	----------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2962-125 Extrusion *17532**ET 09-01-21*

3.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
-----	-------------	-----------------------



Comment: LANDING GEAR RESOURCE 1

1-Determine square end of tube and deburr

2-Drill #30 pilot holes using DT8678. Open holes to Ø5/16" (0.313"). Deburr holes.

Handwritten: } ET 09-01-21

4.0	BENDING	BENDING MACHINE - SKIDTUBES
-----	---------	-----------------------------



Comment: BENDING MACHINE

Bend tube as per program BO105 on CNC Bender and Dwg D2966. Use 5/16" locator pin on buggy "A".

ET 09-01-21

5.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
-----	-------------	-----------------------



Comment: LANDING GEAR RESOURCE 1

1-Cut Fwd end of the tube using DT8185-1G

ET 09-01-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

2-Cut Aft end at 107.06" using DT8185D

3-Deburr ends

4-Drill Aft Cap holes using DT8678

5-Locate DT8679 with 1/8 clecos in Aft Cap holes. Ensure DT8679 is centered on Fwd end of tube and drill #40 Fwd bushing.

6-Clamp DT8679 to the tube. Drill all #30 wearplate and crossbolt holes.

7-Open Aft Cap holes using #6 drill

8-Open wearplate holes and two side holes to Ø19/64" (0.297") as per Dwg

D2966-1.

9-Deburr holes.

10-Open remaining (16) crossbolt holes to Ø0.500

6.0

D2964

Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2964

Cap

A/R

Aluminum Rod

314101
M109213/M 110295 BE 9-1-29

7.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Weld Fwd Cap as per Dwg D2966 and QSI 004. Fill #40 Fwd cleco hole.

2-Grind Fwd Cap welds flush

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Sorlat 29/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

9.0

QC10

VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

Scot 10129 (K)

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

D H 9-1-29

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

DP 9-1-29

12.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open crossbolt holes to finish size as per Dwg D2966

2-Open 14 holes to Ø0.750" & 2 holes to Ø0.875", countersink crossbolt holes & remove alodine to prepare for welding as per Dwg D2966

3-Deburr holes inside & outside, blow out chips

K 9-1-29

13.0

D2976

BO 105 Skidtube I Beam



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Numbe

Description Batch

1 D2976 Web

3441395

D H 9-1-30

14.0

D2971

Cross Bolt Spacer



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2971 Crossbolt Spacer

44445

SC 9-2-1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

15.0

D2973

Cross Bolt Spacer



Comment: Qty.: 7.0000 Each(s)/Unit Total: 7.0000 Each(s)

Pick:

Qty Part Number Description Batch

7 D2973 Crossbolt Spacer

~~14636~~ 14636

SL 9-2-1

16.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Bond Web in place per QSI 015. (Ensure holes line up)

Pick:

Qty Part Number Description Batch

A/R Sikaflex-291

Sikaflex expiry date:

109753
2-7-11

11 9-1-30

2-Weld Crossbolt Spacers as per Dwg D2966 and QSI 004. For crossbolt spacer, weld one side, pass 5/8" drill; weld other side, pass 5/8" drill.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod

M110295

BE 09/02/02

3-Pass Ø0.630" drill to remove spillover for D2973 crossbolt. Pass Ø0.750" drill to remove spillover for D2971 crossbolt.

BE 09/02/02

4-Grind welds flush as per Dwg D2966

DM 09-02-03

17.0

QC10

VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

S 09/02/03 (H)

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/02/03 (H)

19.0

POWDER COATING

POWDER COATING



Pressure washer



FL 09/02/09 (H)

Comment: HAND FINISHING RESOURCE #1

Powder Coat Gloss White as per QSI 005 4.3

M 109996

START TIME:

15:45

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

OVEN TEMPERATURE: 320°

FINISH TIME: 16:15

By 02-02-09 (1)

20.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



HL



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

09-02-11

(1)

21.0

D2965

Cap, 105 Skidtube



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2965

Cap

B45616

FL

22.0

D29701

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2970-1

Wearplate

B43726

FL

23.0

D29703

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2970-3

Wearplate

B43727

FL

24.0

D31761

Bushing



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3176-1

Bushing

B35627

FL

25.0

D31763

Nut



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3176-3

Nut

B37585

FL 09/02/11 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

26.0

ALS71032130

Insert



Comment: Qty.: 36.0000 Each(s)/Unit Total : 36.0000 Each(s)

Pick:

Qty Part Number Description Batch

36 ALS7-1032-130 Insert m108606

or ALS4-1032-130

or AKS7-1032-130

or AKS4-1032-130

FL

27.0

AN960JD10L

Washer



Comment: Qty.: 28.0000 Each(s)/Unit Total : 28.0000 Each(s)

Pick:

Qty Part Number Description Batch

28 AN960JD10L Washer m109632

FL

28.0

MS27039108

Screw



Comment: Qty.: 26.0000 Each(s)/Unit Total : 26.0000 Each(s)

Pick:

Qty Part Number Description Batch

26 MS27039-1-08 Screw m110467

FL

29.0

MS27039109

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 MS27039-1-09 Screw m18057

FL

30.0

HAND FINISHING1

HAND FINISHING RESOURCE #1







Comment: HAND FINISHING RESOURCE #1

1-Inspect for foreign objects as per QSI 024

2-Install Inserts, Wearplate and Cap per Dwg D2966. Insert a drop of sikaflex at insert holes before installing wearplates. Seal Aft Cap using Sikaflex. Install bushing and nut. By looking Fwd, install nut to right hand side.

Pick:

FL 09/02/11 (P)

W/O: 44846		ESTIMATE: 10119		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09/02/11	27.0	Add 2x AN960JD10L washer Perm Change. Review chg: parts list			FL	09/02/11		 09/02/11	 09/02/11
09/02/11	28.0	Add 2x MS27039-108 screw perm. Change. Review chg: parts list			FL	09/02/11		 09/02/11	 09/02/11

Part No: D105-674-011 WG PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

Qty Part Number Description Batch
A/R Sikaflex-291 m109883
Sikaflex expiry date: 09/11

FD 09/02/11 (1)

3-Wing Walk as per Dwg D2966 and QSI 005 4.4
Batch: M110454

09-02-11 (X)

31.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

09/02/11 (X)

32.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

09-02-11

*****ENSURE INSERTS ARE AT LOCATION (6) AS PER DWG D2966*****

33.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick: Packing Kit

34.0

D2972

Bushing



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch
6 D2972 Bushing B33544

09/02/17 (X)

35.0

D2974

Packer



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch
1 D2974 Packer 42715

09/02/17 (X)

36.0

D2975

Wearshoe



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch
2 D2975 Wearplate 29538

09/02/17 (X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

37.0

AN451A

Bolt



Comment: Qty.: 3.0000 Each(s)/Unit Total: 3.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

3 AN4-51A Bolt

M109285

SS 09/02/17 (X)

38.0

AN960JD10L

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

8 AN960JD10L Washer

109632

SS 09/02/17 (X)

39.0

MS21042L4

Nut



Comment: Qty.: 3.0000 Each(s)/Unit Total: 3.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

3 MS21042L4 Nut

M109282

SS 09/02/17 (X)

40.0

MS27039108

Screw



Comment: Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

8 MS27039-1-08 Screw

M110552

SS 09/02/17 (X)

41.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

209-2-19 (1)

42.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D105-674-011

Location:

2/2/18 SV

44846

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 15/01/2009 12:35:30 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BO 105 SKIDTUBE ASSEMBLY

Job Number: 44846

Part Number: D105674011WG

Job Number:



Seq. #:

Machine Or Operation:

Description :

43.0

QC21

FINAL INSPECTION/W/O RELEASE



09/02/20 *[Signature]*

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mk
09-02-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN RF	DRAWN BY RF	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D2966	REV. A SHEET 1 OF 2
DATE 00.03.08		TITLE BO 105 SKIDTUBE ASSEMBLY	SCALE NTS
A	00.03.08	NEW ISSUE	

RELEASED
00-05-11

Qty	Part Number	Description
X	D2966-041	SKIDTUBE ASSEMBLY
1	D2962-125	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2970-1	WEARPLATE
1	D2970-3	WEARPLATE
1	D2971	CROSS BOLT SPACER
7	D2973	CROSS BOLT SPACER
1	D2976	WEB
36	ALS7-1032-130 or ALS4-1032-130 or AKS7-1032-130 or AKS4-1032-130	INSERT
28	AN960JD10L	WASHER
26	MS27039-1-08	SCREW
2	MS27039-1-09	SCREW
1	D3176-1	BUSHING
1	D3176-3	NUT

A2

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) WELDING TO BE DONE PER DART QSI 004.
- 3) INSERT D2976 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 4) USE DART DRILL TEMPLATE DT8451 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION B-B (34 PLACES) AFTER FINISH. SEAL WEARPLATE SCREWS WITH SIKAFLEX-241/-291.
- 5) DO NOT INSTALL MS27039-1-08 SCREWS AND AN960JD10L WASHERS IN THESE LOCATIONS.
- 6) INSTALL ALS7-1032-130 INSERT, MS27039-1-08 SCREW, AND AN960JD10L WASHER IN 2 PLACES THIS LOCATION BEFORE POWDER COATING.
- 7) FINISH:

ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2976 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART
QSI 005 4.4 (OPTIONAL) BLACK SANDTEX (REF 4.3.5.7) ▲

BLACK SANDTEX (REF 4.3.5.7)

01.01.29
ip 01.01.30

△

76 WEB
005 4.3
ER DART
SUBJECT
V
R
448446

A2	02.10.30	ADD D3176-1/-3	# UP
A1	01.01.24	CHANGE COLOR TO BLACK SANDTEX	# UP

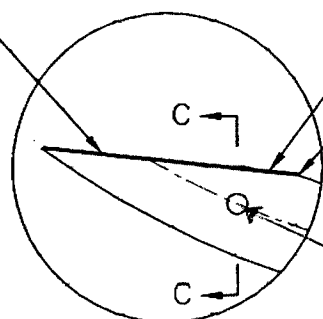
Copyright © 2000 by DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

DETAIL A
SCALE 1:3

BLACK ANTI-SKID

D2964 CAP



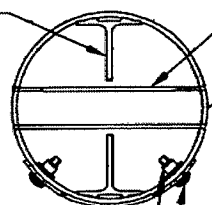
INSTALL D3176-1 (1)
D3176-3 (1)
AFTER FINISH

A2

SECTION B-B
SCALE 1:6

D2973 SPACER

D2976 WEB (REF)



AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING FOR $\phi 0.750$ HOLES ONLY:
1. CHAMFER HOLE $0.030 \times 45^\circ$
2. INSERT D2973 SPACER (7 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS $\phi 0.630$ DRILL TO REMOVE SPILL OVER

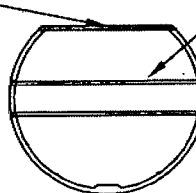
ALS7-1032-130 INSERT (34 PLACES)

MS27039-1-08 SCREW (1)
AN960JD10L WASHER (1)
(26 PLACES)

SECTION C-C
SCALE 1:6

D2971 SPACER

D2964 CAP (REF)



PERFORM THE FOLLOWING FOR $\phi 0.625$ HOLES ONLY:
5. CHAMFER HOLE $0.030 \times 45^\circ$
6. INSERT D2971 SPACER
7. WELD INTO PLACE AND GRIND FLUSH
8. PASS $\phi 0.484$ DRILL TO REMOVE SPILL OVER

DETAIL D
SCALE 1:4

SEAL WITH
SIKAFLEX-241/-291
ADHESIVE

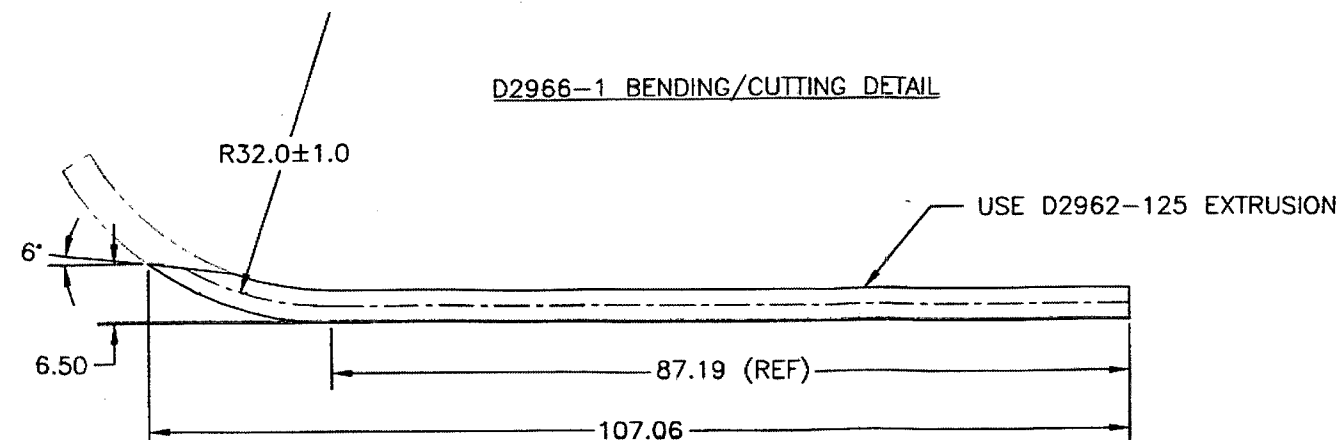
D2965 CAP

$\phi 0.208$
DRILL PRIOR TO D2965 CAP
INSTALLATION (2 PLACES)

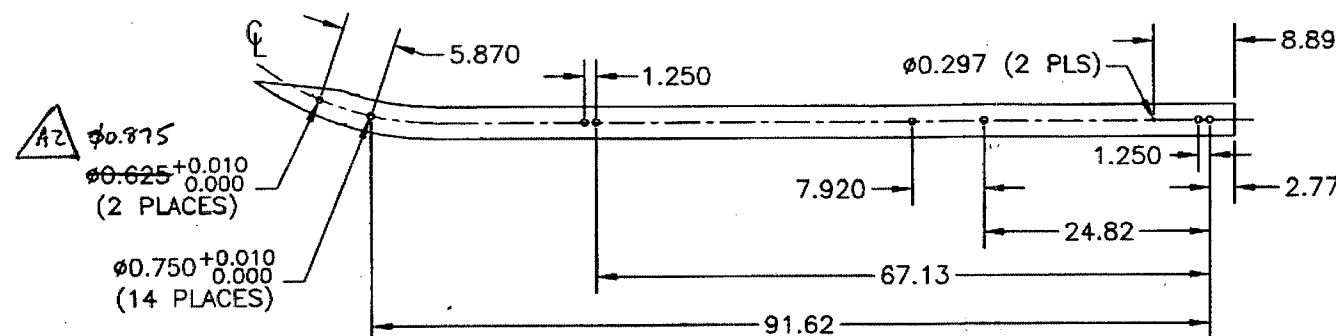
MS27039-1-09 NUT (1)
AN960JD10L WASHER (1)
(2 PLACES)

D2976 WEB (REF)

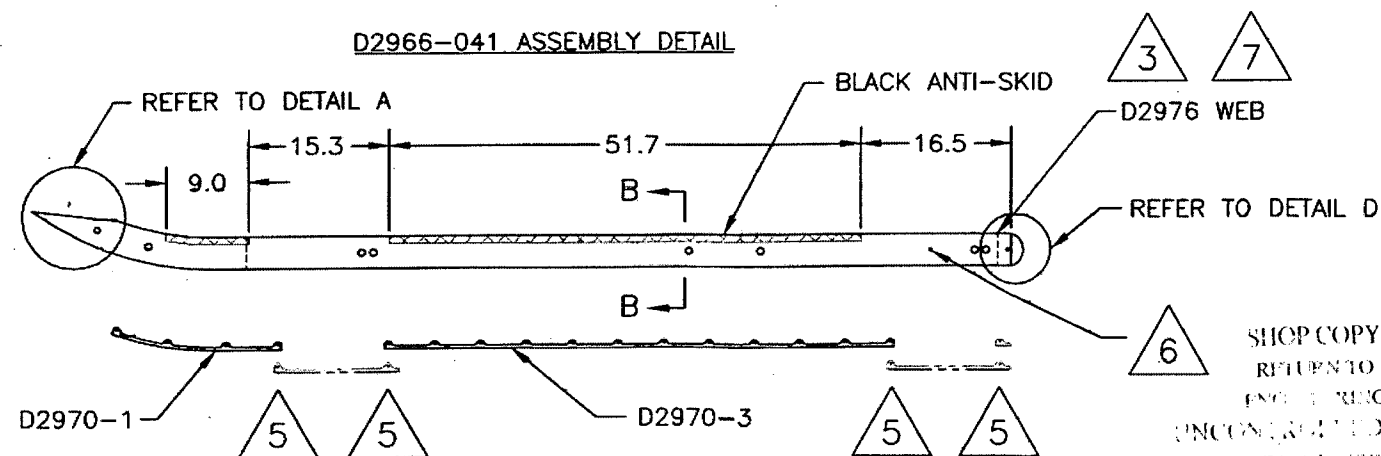
D2966-1 BENDING/CUTTING DETAIL



D2966-1 DRILLING DETAIL



D2966-041 ASSEMBLY DETAIL



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO A WARNING
WITHIN THE
WORK CENTER
NO 44840

COPYRIGHT © 2000 BY DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL
AND IS SUPPLIED ON THE EXPRESS CONDITION
THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE USA, INC.

DESIGN
RF

DRAWN BY
RF

CHECKED
A

APPROVED
A

DATE

00.03.08

DART

DART AEROSPACE USA, INC.
BELLEVUE, WA

DRAWING NO.

D2966

REV. A

SHEET 2 OF 2

TITLE

BO 105 SKIDTUBE ASSEMBLY

SCALE

1:20

NO. 172

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 41331
Part number: D105 674 011
Description: B0105 skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Paul Dwyer Date of Test Coupon 08-09-05

Welder Barclay Elliot Date of Test Coupon 08-09-05

The above named individual is qualified in accordance with AWS D17.1.2001 to weld